

Prof. Watson's planet with that of which Leverrier has indicated the track, he believes he has shown that there is no incompatibility between the observed and hypothetical objects. If only one such planet exist between Mercury and the sun M. Gaillot points out that, in order to account for the accelerated motion in the perihelion of Mercury, its mass must be nearly equal to that of the latter—an inference drawn from Leverrier's table in vol. v. of the *Paris Annales*. An ephemeris extending to September 1 is appended to M. Gaillot's communication in the *Comptes Rendus* of August 5. Remark that the assumed sidereal period of Prof. Watson's planet is 24.25 days, the synodical period is nearly twenty-six days, and accordingly we find by the ephemeris that the body should pass nearly at the same distance in longitude and latitude from the sun on August 24. But considering that this must hold during the next revolution whatever the period of any possible intra-Mercurial planet may be, it may be suggested that the most effectual plan of search will be to watch daily the vicinity so indicated with our larger instruments beyond the period at which the hypothetical planet should pass according to M. Gaillot's ephemeris. To set the equatorial it will be sufficient to subtract 9m. 50s. from the sun's right ascension at the proposed time of search, and to add to the sun's N.P.D. a quantity varying from 23' on August 22, to 17' on September 10.

A COMPANION OF α LYRÆ.—On several occasions during the last ten years, to our knowledge, attention has been directed to a star near α Lyræ in the *n. f.* quadrant, and suspicion of variability entertained, from the observer not having distinctly remarked it previously. An inquiry on the same point was lately addressed by a correspondent to Prof. Winnecke. The star is on an angle of about 42° , distance 139". In October, 1870, it was a full magnitude fainter than the well-known Herschelian companion. Possibly some reader interested in the variable stars may be able to say if there is any reason to include the more distant star in this class of objects. In due course the direction of the proper motion of the large star will bring it immediately upon this *comes*, supposing there be no physical connection.

SCHMIDT'S "CHARTER DER GEBIRGE DES MONDES."—We hope next week to give some account of this most laborious and valuable work, which has been produced, through the liberality and scientific spirit of the Prussian government, in a style and with a perfection of arrangement that reflect the highest credit on all concerned. Probably no astronomical work could possess a greater degree of interest for amateurs generally, and—considering the attention paid to the examination of the moon's surface in this country—to British amateurs especially.

GEOGRAPHICAL NOTES

THE Arctic exploring ship *Alert* is being again fitted out for active duty, under the command of her old captain, Sir George Nares. She is intended for a voyage of surveying service principally in the South Pacific. Her first work will be an examination of the inner water leading from the Straits of Magellan to the Gulf of Peñas, along the seaboard of Chili; from this she will stretch across the South Pacific Ocean towards Fiji adding (*en route*) as far as practicable to our knowledge of the hydrography of the Low Archipelago, Society and Friendly Islands. After a few months spent in the neighbourhood of Fiji and in an examination of dangers lying in the track of navigation between that group and the Colony of New Zealand, she will, for the latter part of her voyage, be employed off the North Western Coast of Australia, principally in ascertaining the positions of, and as far as necessary charting, the various reefs and islets lying off the Australian continent, and between it and the ports of the Dutch Indies, at many of which reefs, &c.,

traffic has been for some time increasing in the search for trepang, pearls, and guano.

THE *Mittheilungen* of the Vienna Geographical Society, Nos. 6 and 7, contains a valuable "Culture-Map" of Asia Minor, exhibiting in a satisfactory manner the various zones of vegetation which mark that region recently brought into such intimate relations with this country. The map is by A. v. Schweiger-Lerchenfeld, who contributes also the explanatory text. Dr. Ziegler describes the important works carried on during 1877-8 by the Swiss correspondents of the Society, and Prof. Schmick contributes a paper on Ocean Currents.

FROM America we have No. 2, 1878, of the always interesting *Bulletin* of the American Geographical Society. A paper on "Japan, Geographical and Social," by the Rev. W. E. Griffis, contains the results of much research, as well as of personal observation, and is an important contribution to our knowledge of that country. Dr. Wright Hawkes discusses in an able and unprejudiced manner "The So-called Celtic Monuments of Brittany," his conclusion being that the evidence as to their origin is very conflicting. Mr. Jess Young, who was astronomer to Giles's trans-Australian expedition, gives an account of the results of his observations while crossing the great Australian desert.

THE Geographical Society of St. Petersburg intends to publish Karl Ritter's works in Russian in celebration of his jubilee.

WE learn that a new branch of the Russian Geographical Society, independent of those of Orenburg and Western Siberia, will shortly be opened at Tashkent.

WE have received from Williams and Norgate a neat and well-executed map of Cyprus, by Kiepert of Berlin, upon a sufficiently large scale to show distinctly the chief features of the island.

NOTES

PROF. MENDELÉEFF is to be absent from his post in the St. Petersburg University for a year for the purpose of visiting Western Europe, where he will devote his time to the preparation of a large work on aeronautics. The work will contain a historical sketch of the subject, and expound its present condition from a scientific point of view.

THE appearance is announced of a biography of the late Prof. von Baer, by Dr. Stida, Professor in the Dorpat University. The autobiography of Baer appeared some years before his death, but embraced only his childhood and youth. The work of Dr. Stida is chiefly devoted to the scientific life of Baer, and contains a complete review of his works.

WE are glad to see that the *Times* is beginning to recognise the national importance of science-teaching in schools, and the necessity for our legislators being able to estimate the bearings of the various problems in physical science which are involved in the measures that come before them, in which the national welfare is involved. In a leading article on the meeting of the British Association the *Times* says that "We are living in a time when legislation is busy with physical matters, and is likely to become more so. The tendency of unscientific persons, especially when they are politicians, is to ignore the certainties which physical science furnishes, and hence to suppose that legislation about physical matters may properly be conducted upon a basis of compromise, like legislation about matters of opinion. It is very important that people who are not scientific themselves, and who never will be, should yet possess enough scientific knowledge to understand the difference which separates questions on which compromise is proper or expedient from those in which it would be fatal to the attainment of the desired result." The *Times* seems to us in-